Molar Pregnancy with a Co-Existing Viable Fetus

Molar Gebeliğin Eşlik Ettiği Canlı Gebelik Olgusu

Molar Gebelik ve Canlı Fetus / Molar Pregnancy with a Live Fetus

Ruya Deveer[1], Yaprak Engin-Ustun[1], Ozlem Gun-Eryilmaz[1], Eren Akbaba[1], Mehmet Deveer[2]
[1]Zekai Tahir Burak Women Health Research and Education Hospital, Perinathology,
[2] Dr Nafiz Körez Public Hospital, Radiology, Ankara, Turkey

Özet

Bu çalışmanın amacı molar gebelikle birlikte oluşmuş canlı fetüs olgusunu literatür eşliğinde sunmaktır. Hiperemezis gravidarum ve hipertiroidizm bulguları ile ortaya çıkan ve yaygın plasental molar değişiklikle normal fetusun birliktelik gösterdiği gebelik olgusuna amniyosentez uygulandı. Normal karyotipli fetüs sağlıklı bir şekilde terme ulaştı. Sezaryen ile doğurtuldu. Molar gebelikle birlikte normal karyotipli fetüs varlığında annenin yakın takibiyle gebeliğin devamı önerilebilir.

Anahtar Kelimeler

Molar Gebelik; Hipertiroidizm; Sağlıklı Bebek

Abstract

The aim of this study was to report the clinical features, management, and outcome of a case of molar pregnancy with a coexisting viable fetus and to review the literature. In this article, we report a case of pregnancy with diffuse placental molar change and a normal fetus which presented with hyperemesis gravidarum and hyperthyroidism. Genetic amniocentesis showed normal fetal karyotype. A healthy full-term live male infant was delivered by cesarean section. In molar pregnancies with a normal karyotype fetus, with intensive maternal follow-up, continuation of pregnancy can be suggested.

Keywords

Molar Pregnancy; Hyperthyroidism; Healthy Infant

DOI: 10.4328/JCAM.830 Received: 12.10.2011 Accepted: 13.12.2011 Printed: 01.01.2015 J Clin Anal Med 2015;6(1): 88-90
Corresponding Author: Rüya Deveer, 30. Cad. 340. Sk. Mutlu Apt. 5/5, Çiğdem Mah., Çankaya, Ankara, Turkey.
GSM: +905063801350 E-Mail: deveer3@hotmail.com

Introduction

Hydatidiform molar change is the pathological manifestation of genetically abnormal conception. Abnormal fetoplacental development and placental villous trophoblast hyperplasia results from paternally derived genetic material. Hydatidiform mole is classified as partial (PM) or complete (CM), on the basis of distinctive histopathological features and genetic abnormalities [1]. PMs are mostly paternally derived triploids, whilst most CMs are androgenetic [2]. In CM there is total replacement of normal placenta by grossly dilated and hydropic villi in the absence of fetus. In PM there is partial replacement with hydropic villi and visible abnormal fetal parts mostly leading to termination of pregnancy in the first trimester [3].

The association of CM and live fetus in the same pregnancy generally represents dizygotic twin pregnancies in which one fertilization results in a CM and the other in a normal co-twin [4]. In these cases, there is usually clear distinction, both sonographically and pathologically, between the molar and non-molar placenta. Singleton PM with a live fetus may occasionally survive into the third trimester.

We present a case of a pregnancy with prenatally detected diffuse placental molar change, resulting in a phenotypically normal diploid male infant at term.

Case Report

A 35-year-old woman, gravida 5, para 4, at 14 weeks of gestation was referred to our Perinatology unit, with hyperemesis gravidarum. She did not have any known systemic disease, tobacco or alcohol use. Familial history was unremarkable. Obstetric history revealed that she had four healthy children. She received no prenatal care and reported no medication use until 14th week of pregnancy. Her past medical history was unremarkable. Ultrasound examination revealed a singleton pregnancy with no fetal structural abnormalities and fetal biometry consistent with gestation but numerous placental lucent cysts suggestive of molar pregnancy presented with clear margin from the normal placenta (Figure 1). Her initial laboratory examination revealed hyperthyroidism (thyroid stimulating hormone (TSH) <0.01 uIU/ml, free triiodothyronine (fT3)=7.6 pg/ml, free thyroxine (fT4)=2.7 ng/dl). Propylthiouracil treatment was started. Her hyperthyroidism was successfully treated with propylthiouracil. Antenatal detection of molar pregnancy coexisting with a viable fetus warranted us for genetic analysis. Amniocentesis was performed at 17 weeks of gestation and disclosed a normal karyotype. Close antenatal surveillance was performed. She did not have any obstetrical complication during pregnancy. A phenotypically normal alive and healthy male infant weighing 3100 grams was delivered by cesarean section at 39 gestational week. On macroscopic examination the placenta revealed widespread, diffuse vesicle formation (Figure 2). A diagnosis of molar pregnancy with normal fetus was made. The serum titre of β-subunit of Human chorionic gonadotropin (β-hCG) of the mother decreased to undetectable levels 1 month after delivery without any chemotherapy. She was doing well and had no evidence of recurrence after 3 and 12 months of follow-up. The male baby was normal without any complications at 3 and 12 months follow-up.

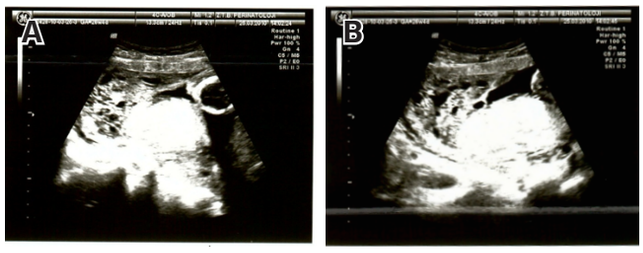

Figure1. Ultrasonography at 14 weeks' gestation showing confined molar-like appearance of the placental tissue. (A, B)

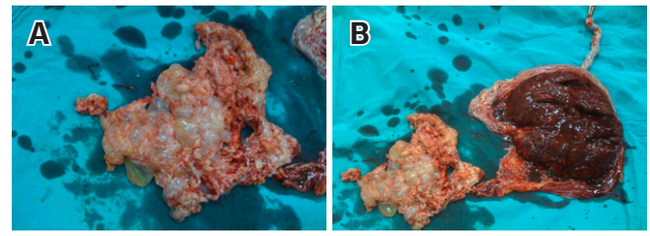

Figure2. Macroscopic view of the placenta (A, B)

Discussion

We have reported a case of a singleton pregnancy in which the fetus was phenotypically normal at birth but diffuse molar change was present in the placenta, which was identified by ultrasound examination at 14 weeks of gestation. The problems in the management of molar pregnancy and a live fetus involve the risks of fetal abnormality, malignant trophoblastic change, and severe maternal complications such as preeclampsia, thyrotoxicosis, heavy bleeding, pregnancy failure, and preterm birth. Termination of pregnancy might be required due to these complications. In cases with a normal karyotype and no gross fetal abnormalities on sonography, continuation of pregnancy is recommended as long as maternal complications are absent or controllable [5]. In our case severe hyperemesis gravidarum was the first sign of disease and after hospitalization hyperthyroidism was detected and successfully treated with propylthiouracil. Amniocentesis revealed a diploid (46XY) karyotype. Even though most instances of partial mole are triploid [6], only a few cases of diploid partial moles have been reported. Prognosis of partial mole is usually better than the complete mole as few cases of partial moles progress to persistent trophoblastic disease. However, the nature and the risks of diploid partial moles are not well established and they seem to be a distinct clinical entity.

With close antenatal surveillance, our patient delivered a healthy male infant without any complications. We also performed intensive maternal follow-up in the postpartum period for the risk of persistent trophoblastic disease but the patient did not show any evidence of persistent trophoblastic disease 3 and 12 months after delivery.

Because diagnosis of hydatidiform moles based solely on morphology suffers from poor interobserver reproducibility, a variety of ancillary techniques such as Immunohistochemical assessment and molecular genotyping have been developed to improve diagnosis [7]. We do not have those techniques at our department. The lack of pathological examination of the normal appearing and molar placental tissues is one of the weaknesses of this case report.

Molar pregnancy and co-existing normal karyotype fetus is a rare event. With intensive maternal follow-up, continuation of pregnancy can be suggested.

Competing interests

The authors declare that they have no competing interests.

References

1. Lawler SD, Fisher RA, Pickthall VJ, Povey S, Evans MW. Genetic studies on hydatidiform moles. I. The origin of partial moles. Cancer Genet Cytogenet 1982;5(4):309-20.
2. Kajii T, Ohama K. Androgenetic origin of hydatidiform mole. Nature 1977;268(5621):633-4.
3. Hsieh CC, Hsieh TT, Hsueh C, Kuo DM, Lo LM, Hung TH. Delivery of a severely anaemic fetus after partial molar pregnancy: Clinical and ultrasonographic findings Hum Reprod 1999;14(4):1122-6.
4. Paradinas FJ, Fisher RA, Browne P, Newlands ES. Diploid hydatidiform moles with fetal red blood cells in molar villi. 1--Pathology, incidence, and prognosis. J Pathol 1997;181(2):183-8.
5. Lee SW, Kim MY, Chung JH, Yang JH, Lee YH, Chun YK. Clinical findings of multiple pregnancy with a complete hydatidiform mole and coexisting fetus. J Ultrasound Med 2010;29(2):271-80.
6. Dolapcioglu K, Gungoren A, Hakverdi S, Hakverdi AU, Egilmez E. Twin pregnancy with a complete hydatidiform mole and co-existent live fetus: Two case reports and review of the literature. Arch Gynecol Obstet 2009;279(3):431-6.
7. Murphy KM, McConnell TG, Hafez MJ, Vang R, Ronnett BM. Molecular genotyping of hydatidiform moles: analytic validation of a multiplex short tandem repeat assay. J Mol Diagn 2009;11(6):598-605.